

VOLUME 7B, CHAPTER 8: “BASIC PAY RATES, LEGISLATIVE CHANGES, AND COST-OF-LIVING ADJUSTMENTS (COLA) TO RETIRED PAY”

SUMMARY OF MAJOR CHANGES

All changes are denoted by **blue font**.

Substantive revisions are denoted by an asterisk (*) symbol preceding the section, paragraph, table, or figure that includes the revision.

Unless otherwise noted, chapters referenced are contained in this volume.

Hyperlinks are denoted by **bold, italic, blue, and underlined font**.

The previous version dated **July 2018** is archived.

PARAGRAPH	EXPLANATION OF CHANGE/REVISION	PURPOSE
All	Updated the hyperlinks and revised the chapter to comply with current administrative instructions.	Revision
080101	Added hyperlink to the COLA memorandums beginning with Fiscal Year 2018.	Addition
080401 through 080412	Deleted paragraphs to streamline COLA rate information. Deleted COLA rates are archived in the former Chapter 8.	Deleted
080501 through 080504	Deleted paragraphs to streamline COLA rate information and renumbered remaining paragraphs. Deleted COLA rates are archived in the former Chapter 8.	Deleted
080511.A	Added COLA rates for retired pay, effective December 1, 2018.	Addition
080511.B	Added Executive Order 13856 which provided monthly basic pay increase for members of the uniformed services, effective January 1, 2019.	Addition
Table 8-1	Updated Table 8-1, Full COLA Percentage Table.	Revision
References	Updated “References.”	Revision

Table of Contents

0801	GENERAL	4
*080101.	Overview	4
080102.	Purpose	4
080103.	Authoritative Guidance	5
0802.	DEFINITIONS	5
080201.	Base Index	5
080202.	Base Quarter	5
080203.	Burchinal Decision	5
080204.	COLA	5
080205.	Legislative Increase	6
080206.	Otherwise Qualified	6
080207.	Pay Table Code	6
080208.	Price Index	6
080209.	Price Index for a Quarter	6
080210.	Recomputation	6
080211.	Retired Pay	6
080212.	Retired Pay Base	6
080213.	Uniform Retirement Date Act (URDA)	7
080214.	Years of Service for Basic Pay	7
080215.	Years of Service for Percentage Multiplier	7
0803	MAJOR CHANGES IN THE USE OF BASIC PAY RATES AND CONDITIONS APPLICABLE TO COMPUTATION OF RETIRED PAY	7
080301.	Retired Pay Based on the Consumer Price Index (CPI)	7
080302.	Effects of Public Law 90-207 on Retired Pay Computation	7
080303.	One Percent Increase to COLA	8
080304.	Pay Inversion	8
080305.	Tower Amendment	8
080306.	Basic Pay Average	9
080307.	Modification of COLAs Applicable to Military Retired and Retainer Pay	9
080308.	The Military Retirement Reform Act of 1986	9
*0804	PROVISIONS OF PAY CHANGES, EXCEPTIONS, AND SPECIAL COMPUTATIONS BETWEEN DECEMBER 1, 1949 AND DECEMBER 1, 2005	10
*0805	PROVISIONS OF PAY CHANGES, EXCEPTIONS, AND SPECIAL COMPUTATIONS STARTING DECEMBER 2005	10
080501.	COLA and Basic Pay Rates FY 2010	10
080502.	COLA and Basic Pay Rates FY 2011	11
080503.	Removal of the 75 Percent Cap Subject to Provision	12
080504.	COLA and Basic Pay Rates FY 2012	13

Table of Contents (Continued)

080505. COLA and Basic Pay Rates FY 2013 14
080506. COLA and Basic Pay Rates FY 2014 15
080507. COLA and Basic Pay Rates FY 2015 16
080508. COLA and Basic Pay Rates FY 2016 17
080509. COLA and Basic Pay Rates FY 2017 19
080510. COLA and Basic Pay Rates FY 2018 20
*080511. COLA and Basic Pay Rates FY 2019 21

*Table 8-1. Full COLA Percentage Table..... 23

*REFERENCES 27

CHAPTER 8

**BASIC PAY RATES, LEGISLATIVE CHANGES, AND COST-OF-LIVING
ADJUSTMENTS (COLA) TO RETIRED PAY**

0801 GENERAL

*080101. Overview

Historical information on legislative actions for the application of special provision in determining the accuracy of retired pay from October 1949 to Fiscal Year (FY) 2009 is located in the archived Chapter 8, dated July 2013, to include COLA rates for the period. Additionally, beginning with FY 2018 the COLA Memorandums are located at <https://militarypay.defense.gov/Pay/Retirement/Cola.aspx>.

080102. Purpose

This chapter provides information on legislative actions for the application of special provision in determining the accuracy of retired pay. Pursuant to Title 10, United States Code (U.S.C.), [section 1401a\(b\)](#), COLA rates are listed in this chapter for the periods from FY 2010 to present.

A. Accuracy of Retired Pay

The member's retired pay is determined through a history of basic pay rates, retired pay increases, and the application of special provisions. Retired pay for members who have entered a uniformed service after September 7, 1980 is computed using a retired or retainer pay base. See Chapter 3 for gross pay computation. This chapter explains the effect of legislation and COLA on retired pay that has been computed using a retired or retainer pay base.

B. The Use and Effect of Active-Duty Pay Rate Increases on Retired Pay

Before June 1, 1958, all members (except the pre-October 1, 1949 "saved pay" accounts) received a direct percentage of the active-duty basic pay rates in effect October 1, 1949 through May 31, 1958. With the enactment of Public Law 85-422, effective June 1, 1958, it became increasingly more difficult to prepare and maintain tables reflecting the pay of members on the retired rolls and, eventually, preparing such tables was no longer feasible. Public Law 85-422 prohibited the recomputation of retired pay based on changes in the active-duty basic pay rates after retirement. The date of retirement was a factor in computing retired pay because the retired member's pay was fixed to the basic pay rate in effect on the date of retirement. The exceptions permitting members to use another basic pay rate under certain conditions and circumstances are outlined in later paragraphs. The applicable active-duty pay tables now serve as the basis for determining the rate of retired pay.

C. Service After September 7, 1980

For members who have entered a uniformed service after September 7, 1980:

1. The amount of retired pay is individualized. Members who retire with the same grade and years of service for percentage and basic pay purposes may not receive the same amount of retired pay.

2. The member's current retired pay can be verified from the retired or retainer pay base, years of service for percentage purposes or percentage of disability, retired pay increases, and the application of any special provisions in retired pay identified in this chapter.

080103. Authoritative Guidance

The authoritative references are listed at the end of this chapter.

0802. DEFINITIONS

080201. Base Index

The base index is the price index for the base quarter for the most recent adjustment under 10 U.S.C. § 1401a(b).

080202. Base Quarter

Base Quarter is the calendar quarter ending on September 30 of each year.

080203. Burchinal Decision

The Burchinal Decision is a Comptroller General (Comp. Gen.) decision [53 Comp. Gen. 698 \(1974\)](#) that retired pay is computed only under the current pay rates or the pay rates in effect immediately before the current rate pursuant to 10 U.S.C. § 1401a(e). Public Law 90-207, effective October 1, 1967, added subsection (e) under 10 U.S.C. § 1401a as a method to prevent pay inversion. See also paragraph 080304. On October 7, 1975, [Public Law 94-106](#) added subsection (f) under 10 U.S.C. § 1401a, which superseded 10 U.S.C. § 1401a(e).

080204. COLA

Percentage change increases are applied to retired pay based on laws using the Consumer Price Index (CPI), Urban Wage Earners and Clerical Workers–U.S. City Average (commonly referred to as CPI-W), as published by the Bureau of Labor Statistics, to determine the amount of the increase. Full COLA percentages appear in Table 8-1.

A. Full COLA. Members on the retired rolls receive the full COLA if their retired pay is computed using the basic pay rates, which were effective before the previous COLA.

B. Partial COLA. Members whose retired pay is computed using the basic pay rates that become effective at the same time, or after the previous COLA, receive a partial COLA. This increase is effective from the later of the date of the full COLA or date of retirement.

080205. Legislative Increase

A legislative increase refers to any adjustment in retired pay authorized by legislation that identifies a percentage increase rather than based on the CPI.

080206. Otherwise Qualified

This term refers to members, retired under a particular law, who are eligible for retirement under another law that may provide greater benefits. It pertains primarily to disability retirees when members have enough service to be retired for nondisability.

080207. Pay Table Code

Pay table code refers to the designation by number (or other means) used by the Defense Finance and Accounting Service to identify active-duty pay rates in effect during various time periods.

080208. Price Index

Price index refers to the CPI (all items, U.S. city average) published by the Bureau of Labor Statistics.

080209. Price Index for a Quarter

For purposes of this chapter, the price index for a calendar quarter is the arithmetical mean (average) of the price index for the three months comprising that quarter.

080210. Recomputation

Recomputation is the provision for recomputing retired pay using a pay table other than that used in the first computation of retired pay.

080211. Retired Pay

The term "retired pay" includes retainer pay.

080212. Retired Pay Base

The retired pay base is an average of the highest monthly basic pay rates applicable to a member, determined by the length of time the member was a member of a uniformed service (less than or at least 36 months) and/or the type of retirement (e.g., disability or voluntary). The retired pay base or retainer pay base applies to members who entered a uniformed service after

September 7, 1980. It replaced the monthly basic pay rate formerly used to compute retired or retainer pay. See Chapter 3 for Pre-September 8, 1980 members.

080213. Uniform Retirement Date Act (URDA)

Pursuant to [5 U.S.C. § 8301](#), the URDA: provides, under certain retirement laws, that members cannot be retired before the first day of the month after the date of first eligibility; and determines the pay table used in computing retired pay. This provision is especially significant when the retirement date coincides with the effective date of an active-duty basic pay rate increase. The additional requirement to compute pay on the rates in effect as of the date retirement would have occurred except for this restriction.

080214. Years of Service for Basic Pay

Computation of service years creditable in determining the basic pay rate upon which retired pay is based may vary depending upon retirement law. See Volume 7A, Chapter 1.

080215. Years of Service for Percentage Multiplier

The years of service for percentage multiplier refers to service years creditable in determining the percentage multiplier factor (applicable percentage rate described in Chapter 3, subparagraph 030201.B times years of creditable service) in retired pay computation. Computation of years of service may vary depending upon retirement law. For reserve retirements under [10 U.S.C., Chapter 1223](#), reserve service points are converted to years of service (i.e., total points divided by 360 equal years of service). See Chapter 1.

0803 MAJOR CHANGES IN THE USE OF BASIC PAY RATES AND CONDITIONS APPLICABLE TO COMPUTATION OF RETIRED PAY

080301. Retired Pay Based on the Consumer Price Index (CPI)

Effective October 1, 1963, 10 U.S.C. § 1401a, as added by Public Law 88-132, stipulated that future adjustments to retired pay would be based on the CPI. Each January the Secretary of Defense was to review the CPI from the previous calendar year and, if it had increased 3 percent or more, then would affect a percentage increase in retired pay as of April 1 using the percentages of increase in the CPI.

080302. Effects of Public Law 90-207 on Retired Pay Computation

Public Law 90-207, effective October 1, 1967, added subsections (c) through (e) under 10 U.S.C. § 1401a. Subsections (c) and (d) stipulated that retired pay, when computed from the current basic pay rates, would increase at the later of the next COLA or retirement date by a partial adjustment. The partial adjustment represented the percent by which the new base index exceeded the index in effect on the day before the basic pay increase. Subsection (e), a saved-pay provision, permitted computation of retired pay on the basic pay rates in effect immediately preceding those

in effect on retirement date if they were more favorable because of a COLA. Public Law 98-94, section 921, effective September 24, 1983, repealed the 1-year look-back provision that was under 10 U.S.C. § 1401a(e).

NOTE: For additional information on the repealed section, see paragraph 080213 in archived Chapter 8. Section 8(a) of Public Law 90-207 provided that, effective January 1, 1968, whenever the General Schedule of Compensation for Federal classified employees increased, an adjustment in the monthly basic pay to authorized members of the uniformed services immediately would become effective.

080303. One Percent Increase to COLA

Public Law 91-179, effective October 31, 1969, stipulated that 1 percent would be added to the percentage increase each time there was a general COLA to retired pay. Partial COLA increases did not include the 1 percent. The add-on was provided to make up for the 3-month time lag between the rise in the CPI and the actual increase in retired pay. [Public Law 94-440](#), effective October 1, 1976, eliminated the 1 percent increase.

080304. Pay Inversion

Public Law 85-422, effective June 1, 1958, prohibited recomputation of retired pay each time active-duty pay was increased. Therefore, it was assumed that members of the same pay grade and years of service who retired under later active-duty pay increases would receive a greater retired pay. Beginning in 1971, there were instances where the cumulative COLA applied to retired pay was greater than the increases in the active-duty pay rates, which was known as “pay inversion.” Pay inversion created some retention problems because, through early retirement, members could increase their retired pay rather than remaining on active duty. Under 53 Comp. Gen. 698 (1974), known as the “Burchinal Decision,” members were restricted to the greater amount of pay, based on two computations of retired pay, computed on the active-duty pay rates in effect:

A. At the time of retirement using the pay grade and years of service for both basic pay and percentage multiplier at the time of retirement, or

B. Immediately before the active-duty basic pay rates in effect on the date of retirement, plus the COLA in retired pay applicable to those basic pay rates. For this computation, the same pay grade and years of service for both basic pay and multiplier at the time of retirement were used even though the computation used the earlier basic pay rates.

080305. Tower Amendment

A. Public Law 94-106, dated October 7, 1975, added subparagraph (f) to 10 U.S.C. § 1401a. The new provision stipulated another method to offset, in part, the effect of “pay inversion.” This method involved computing pay based “on any previous basic pay rates, on and after January 1, 1971, plus COLA, if the member was eligible for retirement at the time those rates were in effect.” The computation was restricted to the pay grade and years of service at that

earlier time (for retirements on October 5, 1994 or later, the computation may not be based on a grade higher than that held at the time of retirement). The statute applies to all members retired on or after January 1, 1971. There were no retroactive pay adjustments for the period before October 7, 1975.

B. Pursuant to [Public Law 113-66](#), dated December 26, 2013, for a retired member who first became a member of a uniformed service on or after September 8, 1980, and whose retired pay is computed using the high-three method, the Tower Amendment applies only at the time of retirement and not when the first COLA is announced. A member recalled to active duty after retirement is not entitled to recomputation of retired pay under the Tower Amendment upon release from that active duty. Pay recomputation upon that release is restricted to the methods prescribed in [10 U.S.C. § 1402](#) and covered in Chapter 7. The Tower Amendment did not repeal nor modify those provisions.

080306. Basic Pay Average

[Public Law 96-342](#), dated September 8, 1980, as codified at [10 U.S.C. § 1407](#), established a retired pay base for use in computing retired or retainer pay. Title 10, U.S.C. § 1407 applies to members who have entered a uniformed service after September 7, 1980. The percentage of cost-of-living increases is determined by the most recent basic pay rate used in the computation of the retired or retainer pay base.

080307. Modification of COLAs Applicable to Military Retired and Retainer Pay

[Public Law 98-270](#), dated April 18, 1984, amended [5 U.S.C. § 8340\(a\) and \(b\)](#) to modify COLAs that also applied to military retired and retainer pay under 10 U.S.C. § 1401a(b). The effective date for COLAs was changed from March 1 to December 1. The COLA equaled the percentage change in the price index for the base quarter of the year over the price index for the base quarter of the preceding year. Price index is defined at paragraph 080208. The partial COLA equaled the percentage increase of the average CPI for July, August, and September over the CPI for the preceding December.

080308. The Military Retirement Reform Act of 1986

The Military Retirement Reform Act of 1986, Public Law 99-348:

A. Reduced the retired pay multiplier for any member who first became a member of a uniformed service after July 31, 1986, and who retired before age 62 with less than 30 years of creditable service (excluding retirements under [10 U.S.C., Chapters 61](#) and 1223). The multiplier was reduced by:

1. One percentage point for each full year that the member's years of creditable service were less than 30; and

2. One-twelfth of 1 percentage point for each month by which the member's years of creditable service (after counting all full years of such service) was less than a full year.

B. Stipulated cost-of-living increases for any member who first became a member of a uniformed service on or after August 1, 1986, when the increase in the CPI exceeded 1 percent. The cost-of-living increase was 1 percentage point less than the increase in CPI.

C. Restored the reduction in retired pay multiplier under subparagraph 080308.A at age 62 and provided a one-time restoral at age 62 for the reduction in cost-of-living increase under subparagraph 080308.B.

***0804 PROVISIONS OF PAY CHANGES, EXCEPTIONS, AND SPECIAL COMPUTATIONS BETWEEN DECEMBER 1, 1949 AND DECEMBER 1, 2005**

For historical information on legislative actions affecting retired pay from October 1949 to December 2005, see archived Chapter 8, dated July 2013 and July 2018.

***0805 PROVISIONS OF PAY CHANGES, EXCEPTIONS, AND SPECIAL COMPUTATIONS STARTING DECEMBER 2005**

For historical information on legislative actions affecting retired pay from December 2005 to December 2008, see archived Chapter 8, dated July 2018.

080501. COLA and Basic Pay Rates FY 2010

A. A COLA, effective December 1, 2009, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2009	0.0 percent	1401a(b)(2)
January 1 – December, 2009	0.0 percent	1401a(c) & 1401a(f)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2009	0.0 percent	1401a(b)(2)
January 1 – March 31, 2009	0.0 percent	1401a(d) & 1401a(f)
April 1 – June 30, 2009	0.0 percent	1401a(d) & 1401a(f)
July 1 – September 30, 2009	0.0 percent	1401a(d) & 1401a(f)
October 1 – December 31, 2009	0.0 percent	1401a(d) & 1401a(f)

3. For those who first became members of the uniformed service on or after August 1, 1986, and who elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2009	0.0 percent	1401a(e)
January 1 – March 31, 2009	0.0 percent	1401a(e) & 1401a(f)
April 1 – June 30, 2009	0.0 percent	1401a(e) & 1401a(f)
July 1 – September 30, 2009	0.0 percent	1401a(e) & 1401a(f)
October 1 – December 31, 2009	0.0 percent	1401a(e) & 1401a(f)

B. For basic pay rates effective January 1, 2010, [Public Law 111-84](#) and [Executive Order 13525](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2010; and
3. No entitlement to pay computed on the January 1, 2010 basic pay rates for members who retired on January 1, 2010, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2009 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080502. COLA and Basic Pay Rates FY 2011

A. A COLA, effective December 1, 2010, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2010	0.0 percent	1401a(b)(2)
January 1 – December 31, 2010	0.0 percent	1401a(c) & 1401a(f)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2010	0.0 percent	1401a(b)(2)
January 1 – March 31, 2010	0.0 percent	1401a(d) & 1401a(f)
April 1 – June 30, 2010	0.0 percent	1401a(d) & 1401a(f)
July 1 – September 30, 2010	0.0 percent	1401a(d) & 1401a(f)
October 1 – December 31, 2010	0.0 percent	1401a(d) & 1401a(f)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2010	0.0 percent	1401a(e)
January 1 – March 31, 2010	0.0 percent	1401a(e) & 1401a(f)
April 1 – June 30, 2010	0.0 percent	1401a(e) & 1401a(f)
July 1 – September 30, 2010	0.0 percent	1401a(e) & 1401a(f)
October 1 – December 31, 2010	0.0 percent	1401a(e) & 1401a(f)

B. For basic pay rates effective January 1, 2011, [Executive Order 13561](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2011; and
3. No entitlement to pay computed on the January 1, 2011 basic pay rates for members who retired on January 1, 2011, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2010 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080503. Removal of the 75 Percent Cap Subject to Provision

A member who retired, or became entitled to retired pay, due to physical disability on or before January 7, 2011, may not have a retired pay multiplier in excess of 75 percent. Under Public Law 111-383, a member with more than 30 years of creditable service who first becomes entitled to retired pay due to physical disability, on or after January 8, 2011, will not have their multiplier reduced if it is in excess of 75 percent.

080504. COLA and Basic Pay Rates FY 2012

A. A COLA, effective December 1, 2011, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2011	3.6 percent	1401a(b)(2)
January 1 – December 31, 2011	3.6 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2011	3.6 percent	1401a(b)(2)
January 1 – March 31, 2011	3.6 percent	1401a(d)
April 1 – June 30, 2011	2.4 percent	1401a(d)
July 1 – September 30, 2011	0.4 percent	1401a(d)
October 1 – December 31, 2011	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2011	2.6 percent	1401a(e)
January 1 – March 31, 2011	2.6 percent	1401a(e)
April 1 – June 30, 2011	1.9 percent	1401a(e)
July 1 – September 30, 2011	0.1 percent	1401a(e)
October 1 – December 31, 2011	0.0 percent	1401a(e)

B. For basic pay rates effective January 1, 2012, [Executive Order 13594](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2012; and
3. No entitlement to pay computed on the January 1, 2012 basic pay rates for members who retired on January 1, 2012, and who were:
 - a. Warrant officers;

b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2011 transfers); or

c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

NOTE: Members retiring in 2012 may be entitled to more retired pay using the 2011 pay rates increased by a partial COLA, instead of using the increased pay rates with more service credit. Under 10 U.S.C. § 1401a(f)(1), inversions to retired pay entitlements are prevented by allowing computation of retired pay based on retirement at an earlier date. In such computations, the grade and service credit must be those applicable on the earlier date being used. Also, the retiree must meet the retirement eligibility requirements as of the earlier date.

080505. COLA and Basic Pay Rates FY 2013

A. A COLA, effective December 1, 2012, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2012	1.7 percent	1401a(b)(2)
January 1 – December 31, 2012	1.7 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2012	1.7 percent	1401a(b)(2)
January 1 – March 31, 2012	1.7 percent	1401a(d)
April 1 – June 30, 2012	1.0 percent	1401a(d)
July 1 – September 30, 2012	0.2 percent	1401a(d)
October 1 – December 31, 2012	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2012	0.7 percent	1401a(e)
January 1 – March 31, 2012	0.7 percent	1401a(e)
April 1 – June 30, 2012	0.5 percent	1401a(e)
July 1 – September 30, 2012	0.0 percent	1401a(e)
October 1 – December 31, 2012	0.0 percent	1401a(e)

B. For basic pay rates effective January 1, 2013, [Executive Order 13641](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2013; and
3. No entitlement to pay computed on the January 1, 2013 basic pay rates for members who retired on January 1, 2013, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2012 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080506. COLA and Basic Pay Rates FY 2014

A. A COLA, effective December 1, 2013, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2013	1.5 percent	1401a(b)(2)
January 1 – December 31, 2013	1.5 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2013	1.5 percent	1401a(b)(2)
January 1 – March 31, 2013	1.5 percent	1401a(d)
April 1 – June 30, 2013	0.9 percent	1401a(d)
July 1 – September 30, 2013	0.4 percent	1401a(d)
October 1 – December 31, 2013	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2013	0.5 percent	1401a(e)
January 1 – March 31, 2013	0.5 percent	1401a(e)
April 1 – June 30, 2013	0.4 percent	1401a(e)
July 1 – September 30, 2013	0.0 percent	1401a(e)
October 1 – December 31, 2013	0.0 percent	1401a(e)

B. For basic pay rates effective January 1, 2014, [Executive Order 13655](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2014; and
3. No entitlement to pay computed on the January 1, 2014 basic pay rates for members who retired on January 1, 2014, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2013 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080507. COLA and Basic Pay Rates FY 2015

A. A COLA, effective December 1, 2014, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2014	1.7 percent	1401a(b)(2)
January 1 – December 31, 2014	1.7 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2014	1.7 percent	1401a(b)(2)
January 1 – March 31, 2014	1.7 percent	1401a(d)
April 1 – June 30, 2014	1.3 percent	1401a(d)
July 1 – September 30, 2014	0.1 percent	1401a(d)
October 1 – December 31, 2014	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2014	0.7 percent	1401a(e)
January 1 – March 31, 2014	0.7 percent	1401a(e)
April 1 – June 30, 2014	0.7 percent	1401a(e)
July 1 – September 30, 2014	0.0 percent	1401a(e)
October 1 – December 31, 2014	0.0 percent	1401a(e)

B. For basic pay rates effective January 1, 2015, [Executive Order 13686](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2015; and
3. No entitlement to pay computed on the January 1, 2015 basic pay rates for members who retired on January 1, 2015, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2014 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080508. COLA and Basic Pay Rates FY 2016

A. A COLA, effective December 1, 2015, provided:

1. Retired pay COLA for those who first became members of a uniformed service before September 8, 1980 is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2015	0.0 percent	1401a(b)(2)
January 1 – December 31, 2015	0.0 percent	1401a(c) & 1401a(f)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is set out according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2015	0.0 percent	1401a(b)(2)
January 1 – March 31, 2015	0.0 percent	1401a(d) & 1401a(f)
April 1 – June 30, 2015	0.0 percent	1401a(d) & 1401a(f)
July 1 – September 30, 2015	0.0 percent	1401a(d) & 1401a(f)
October 1 – December 31, 2015	0.0 percent	1401a(d) & 1401a(f)

3. The retired pay COLA for those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354 is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2015	0.0 percent	1401a(e)
January 1 – March 31, 2015	0.0 percent	1401a(e) & 1401a(f)
April 1 – June 30, 2015	0.0 percent	1401a(e) & 1401a(f)
July 1 – September 30, 2015	0.0 percent	1401a(e) & 1401a(f)
October 1 – December 31, 2015	0.0 percent	1401a(e) & 1401a(f)

B. For basic pay rates effective January 1, 2016, [Executive Order 13715](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2016; and
3. No entitlement to pay computed on the January 1, 2016 basic pay rates for members who retired on January 1, 2016, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2015 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080509. COLA and Basic Pay Rates FY 2017

A. A COLA, effective December 1, 2016, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2016	0.3 percent	1401a(b)(2)
January 1 – December 31, 2016	0.3 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2016	0.3 percent	1401a(b)(2)
January 1 – March 31, 2016	0.3 percent	1401a(d)
April 1 – June 30, 2016	0.3 percent	1401a(d)
July 1 – September 30, 2016	0.3 percent	1401a(d)
October 1 – December 31, 2016	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2016	0.3 percent	1401a(e)
January 1 – March 31, 2016	0.3 percent	1401a(e) & 1401a(f)
April 1 – June 30, 2016	0.3 percent	1401a(e) & 1401a(f)
July 1 – September 30, 2016	0.0 percent	1401a(e)
October 1 – December 31, 2016	0.0 percent	1401a(e)

B. For basic pay rates effective January 1, 2017, [Executive Order 13756](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2017; and
3. No entitlement to pay computed on the January 1, 2017 basic pay rates for members who retired on January 1, 2017, and who were:
 - a. Warrant officers;

b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2016 transfers); or

c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

080510. COLA and Basic Pay Rates FY 2018

* A. A COLA, effective December 1, 2017, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2017	2.0 percent	1401a(b)(2)
January 1 – December 31, 2017	1.8 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2017	2.0 percent	1401a(b)(2)
January 1 – March 31, 2017	1.8 percent	1401a(d)
April 1 – June 30, 2017	1.0 percent	1401a(d)
July 1 – September 30, 2017	0.4 percent	1401a(d)
October 1 – December 31, 2017	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2017	1.0 percent	1401a(e)
January 1 – March 31, 2017	1.0 percent	1401a(e)
April 1 – June 30, 2017	0.5 percent	1401a(e)
July 1 – September 30, 2017	0.2 percent	1401a(e)
October 1 – December 31, 2017	0.0 percent	1401a(e)

B. For basic pay rates effective January 1, 2018, [Executive Order 13819](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2018; and

3. No entitlement to pay computed on the January 1, 2018 basic pay rates for members who retired on January 1, 2017, and who were:

- a. Warrant officers;
- b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2017 transfers); or
- c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

*080511. COLA and Basic Pay Rates FY 2019

* A. A COLA, effective December 1, 2018, provided:

1. For those who first became members of a uniformed service before September 8, 1980, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2018	2.8 percent	1401a(b)(2)
January 1 – December 31, 2018	2.4 percent	1401a(c)

2. For those who first became members of a uniformed service on or after September 8, 1980, including those members covered by the Blended Retirement System, the retired pay COLA is specified according to the effective date of their retirement as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2018	2.8 percent	1401a(b)(2)
January 1 – March 31, 2018	2.4 percent	1401a(d)
April 1 – June 30, 2018	1.5 percent	1401a(d)
July 1 – September 30, 2018	0.3 percent	1401a(d)
October 1 – December 31, 2018	0.0 percent	1401a(d)

3. For those who first became members of the uniformed service on or after August 1, 1986, and also elected to receive a CSB under the provisions of 37 U.S.C. § 354, the retired pay COLA is specified according to the date of their retirement, as follows:

<u>Retirement Effective</u>	<u>Percent Increase</u>	<u>10 U.S.C. Authority</u>
Before January 1, 2018	1.8 percent	1401a(e)
January 1 – March 31, 2018	1.6 percent	1401a(e)
April 1 – June 30, 2018	1.0 percent	1401a(e)
July 1 – September 30, 2018	0.1 percent	1401a(e)
October 1 – December 31, 2018	0.0 percent	1401a(e)

* B. For basic pay rates effective January 1, 2019, [Executive Order 13856](#) provided for:

1. Increased basic pay rates;
2. No increase for members retired before January 1, 2019; and
3. No entitlement to pay computed on the January 1, 2019 basic pay rates for members who retired on January 1, 2018, and who were:
 - a. Warrant officers;
 - b. Fleet Reservists or Fleet Marine Corps Reservists (December 31, 2018 transfers); or
 - c. Subject to the URDA. For additional information about the URDA, see Chapter 1. Additionally, URDA is defined at paragraph 080213.

*Table 8-1. Full COLA Percentage Table

No.	Date of COLA	Percent
1	Sep 1, 1965	4.4
2	Dec 1, 1966	3.7
3	Apr 1, 1968	3.9
4	Feb 1, 1969	4.0
5	Nov 1, 1969	4.3
6	Aug 1, 1970	5.6
7	Jun 1, 1971	4.5
8	Jul 1, 1972	4.8
9	Jul 1, 1973	6.1
10	Jan 1, 1974	5.5
11	Jul 1, 1974	6.3
12	Jan 1, 1975	7.3
13	Aug 1, 1975	5.1
14	Mar 1, 1976	5.4
15	Mar 1, 1977	4.8
16	Sep 1, 1977	4.3
17	Mar 1, 1978	2.4
18	Sep 1, 1978	4.9
19	Mar 1, 1979	3.9
20	Sep 1, 1979	6.9
21	Mar 1, 1980	6.0
22	Sep 1, 1980	7.7
23	Mar 1, 1981	4.4
24	Mar 1, 1982	8.7
25	Apr 1, 1983 (note 1)	3.3
		3.9
26	Dec 1, 1984	3.5
27	Dec 1, 1986	1.3
28	Dec 1, 1987	4.2 Pre-Aug 86 Member 3.2 Post-Aug 86 Member
29	Dec 1, 1988	4.0 Pre-Aug 86 Member 3.0 Post-Aug 86 Member
30	Dec 1, 1989	4.7 Pre-Aug 86 Member 3.7 Post-Aug 86 Member

Table 8-1. Full COLA Percentage Table (Continued)

No.	Date of COLA	Percent
31	Dec 1, 1990	5.4 Pre-Aug 86 Member 4.4 Post-Aug 86 Member
32	Dec 1, 1991	3.7 Pre-Aug 86 Member 2.7 Post-Aug 86 Member
33	Dec 1, 1992	3.0 Pre-Aug 86 Member 2.0 Post-Aug 86 Member
34	Dec 1, 1993 (note 2)	2.6 Pre-Aug 86 Member 1.6 Post-Aug 86 Member
35	Dec 1, 1994 (note 2)	2.8 Pre-Aug 86 Member 1.8 Post-Aug 86 Member
36	Dec 1, 1995 (note 2)	2.6 Pre-Aug 86 Member 1.6 Post-Aug 86 Member
37	Dec 1, 1996	2.9 Pre-Aug 86 Member 1.9 Post-Aug 86 Member
38	Dec 1, 1997	2.1 Pre-Aug 86 Member 1.1 Post-Aug 86 Member
39	Dec 1, 1998	1.3 Pre-Aug 86 Member 0.3 Post-Aug 86 Member
40	Dec 1, 1999 (note 3)	2.4 Pre-Aug 86 Member 2.4 Post-Aug 86 Member w/o CSB 1.4 Post-Aug 86 Member w/CSB
41	Dec 1, 2000 (note 3)	3.5 Pre-Aug 86 Member 3.5 Post-Aug 86 Member w/o CSB 2.5 Post-Aug 86 Member w/CSB
42	Dec 1, 2001 (note 3)	2.6 Pre-Aug 86 Member 2.6 Post-Aug 86 Member w/o CSB 1.6 Post-Aug 86 Member w/CSB
43	Dec 1, 2002 (note 3)	1.4 Pre-Aug 86 Member 1.4 Post-Aug 86 Member w/o CSB 0.4 Post-Aug 86 Member w/CSB
44	Dec 1, 2003 (note 3)	2.1 Pre-Aug 86 Member 2.1 Post-Aug 86 Member w/o CSB 1.1 Post-Aug 86 Member w/CSB
45	Dec 1, 2004 (note 3)	2.7 Pre-Aug 86 Member 2.7 Post-Aug 86 Member w/o CSB 1.7 Post-Aug 86 Member w/CSB

Table 8-1. Full COLA Percentage Table (Continued)

No.	Date of COLA	Percent
46	Dec 1, 2005 (note 3)	4.1 Pre-Aug 86 Member 4.1 Post-Aug 86 Member w/o CSB 3.1 Post-Aug 86 Member w/CSB
47	Dec 1, 2006 (note 3)	3.3 Pre-Aug 86 Member 3.3 Post-Aug 86 Member w/o CSB 2.3 Post-Aug 86 Member w/CSB
48	Dec 1, 2007 (note 3)	2.3 Pre-Aug 86 Member 2.3 Post-Aug 86 Member w/o CSB 1.3 Post-Aug 86 Member w/CSB
49	Dec 1, 2008 (note 3)	5.8 Pre-Aug 86 Member 5.8 Post-Aug 86 Member w/o CSB 4.8 Post-Aug 86 Member w/CSB
50	Dec 1, 2009 (note 3)	0.0 Pre-Aug 86 Member 0.0 Post-Aug 86 Member w/o CSB 0.0 Post-Aug 86 Member w/CSB
51	Dec 1, 2010 (note 3)	0.0 Pre-Aug 86 Member 0.0 Post-Aug 86 Member w/o CSB 0.0 Post-Aug 86 Member w/CSB
52	Dec. 1, 2011 (note 3)	3.6 Pre-Aug 86 Member 3.6 Post-Aug 86 Member w/o CSB 2.6 Post-Aug 86 Member w/CSB
53	Dec. 1, 2012 (note 3)	1.7 Pre-Aug 86 Member 1.7 Post-Aug 86 Member w/o CSB 0.7 Post-Aug 86 Member w/CSB
54	Dec. 1, 2013 (note 3)	1.5 Pre-Aug 86 Member 1.5 Post-Aug 86 Member w/o CSB 0.5 Post-Aug 86 Member w/CSB
55	Dec. 1, 2014 (note 3)	1.7 Pre-Aug 86 Member 1.7 Post-Aug 86 Member w/o CSB 0.7 Post-Aug 86 Member w/CSB
56	Dec. 1, 2015 (note 3)	0.0 Pre-Aug 86 Member 0.0 Post-Aug 86 Member w/o CSB 0.0 Post-Aug 86 Member w/CSB
57	Dec. 1, 2016 (note 3)	0.3 Pre-Aug 86 Member 0.3 Post-Aug 86 Member w/o CSB 0.3 Post-Aug 86 Member w/CSB
58	Dec. 1, 2017 (note 3)	2.0 Pre-Aug 86 Member 2.0 Post-Aug 86 Member w/o CSB 1.0 Post-Aug 86 Member w/CSB

Table 8-1. Full COLA Percentage Table (Continued)

No.	Date of COLA	Percent
*59	Dec 1, 2018 (note 3)	2.8 Pre-Aug 86 Member 2.8 Post-Aug 86 Member w/o CSB 1.8 Post-Aug 86 Member w/CSB

NOTES:

1. Effective April 1, 1983, COLA provided a 3.3 percent or 3.9 percent adjustment for members whose pay was computed on basic pay rates in effect before October 1, 1982. Members under age 62 on March 1, 1983, were entitled to a 3.3 percent increase. Members who are age 62 or older on March 1, 1983, or who retired by reason of physical disability under [10 U.S.C., Chapter 61](#), were entitled to a 3.9 percent increase. There is no entitlement to a partial COLA on April 1, 1983 for members whose pay was computed on the basic pay rates effective October 1, 1982. (The CPI declined from 292.8 in September 1982 to 290.0 in December 1982.)
2. See the associated COLA paragraph in section 0804 to determine whether member's COLA is delayed.
3. Separate retired pay COLA is applicable for those who first became members of a uniformed service on or after August 1, 1986, who elected to receive a CSB. See Volume 7A, Chapter 66 for information on CSB.

*REFERENCES

CHAPTER 8 - BASIC PAY RATES, LEGISLATIVE CHANGES, AND COST-OF-LIVING ADJUSTMENTS (COLA) TO RETIRED PAY

0801 – GENERAL

080102 10 U.S.C. § 1401a(b)
Public Law 85-422, June 1, 1958

0802 - DEFINITIONS

080201 10 U.S.C. § 1401a(b)
080203 53 Comp. Gen. 698
Public Law 94-106, October 7, 1975
080210 10 U.S.C. § 1401a(h)
080213 5 U.S.C. § 8301
080215 10 U.S.C., Chapter 1223

0803 - MAJOR CHANGES IN THE USE OF BASIC PAY RATES AND CONDITIONS APPLICABLE TO COMPUTATION OF RETIRED PAY

080301 10 U.S.C. § 1401a
Public Law 88-132, October 2, 1963
080302 10 U.S.C. § 1401a
10 U.S.C. § 1401a(c) through (e)
Public Law 90-207, October 1, 1967
10 U.S.C. § 1401a(e)
Public Law 98-94, section 921,
September 24, 1983
080303 10 U.S.C. § 1401a
Public Law 91-179, October 31, 1969
Public Law 94-440, October 1, 1976
080304 Public Law 85-422, June 1, 1958
53 Comp. Gen. 698
080305 10 U.S.C. § 1401a(f)
Public Law 94-106, October 7, 1975
10 U.S.C. § 1402
Public Law 113-66, section 631,
December 26, 2013
080306 10 U.S.C. § 1407
Public Law 96-342, September 8, 1980
080307 5 U.S.C. § 8301(a) and (b)
Public Law 98-270, April 18, 1984
080308 10 U.S.C., Chapters 61 and 1223

REFERENCES (Continued)

OUSD (P&R) Memo, October 29, 2008
OUSD (P&R) Memo, November 17, 2009
OUSD (P&R) Memo, November 12, 2010
OUSD (P&R) Memo, November 22, 2011
OASD (M&RA) Memo, November 8, 2012
OASD (M&RA) Memo, November 14, 2013
OASD (M&RA) Memo, November 13, 2014
OASD (M&RA) Memo, November 5, 2016
OASD (M&RA) Memo, November 21, 2015
OASD (M&RA) Memo, November 21, 2016
OASD (M&RA) Memo, November 27, 2017
OASD (M&RA) Memo, November 1, 2018

*